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REPORT

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2. There were three city power plants and the City Water Supply in Poltava at that time. These enterprises were incorporated under the name of "Vodosvet" (water-light), which was subordinated to the Poltava City Board of Public Utilities.
3. About 1929 the "Vodosvet" corporation went into the water supply business also. After that "Vodosvet" was renamed "Electrovodocanal", and was also subordinated to the Poltava City Board of Public Utilities.
4. There were the following city power plants:
 - (a) Central City Power Plant
 - (b) Block Power Plant
 - (c) New Power Plant

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7. The City Central Power Plant was located on Gogblevsky Street, in the central part of the City.

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8. At first, the Plant was driven by steam, but before World War I, it was reconstructed to Diesel power and its capacity was expanded.
9. [redacted] there were three direct-current dynamos in the Power Plant, which were driven by two-cylinder Diesel engines with the respective capacities of 200, 200, and 170 hp. Voltage on Power Plant busbars was such that consumers could get voltages of 220 v and 110 v.
10. The Diesel engines were supplied to the Power Plant by the Riga Machine-Building Plant not long before the beginning of World War I. The dynamos, as well as the rest of the direct-current equipment of the Central Power Plant, were supplied by "V K E"-General Electric Co. This equipment included also appliances and a control panel for a measuring laboratory of the Power Plant, and a considerable number of electric meters.
11. Many alternating-current electric meters; many electric precision measuring instruments; alternating-current measuring-regulating panel for the measuring laboratory; and other electric appliances and instruments were received by the Power Plant from Germany during the period of the occupation of the Ukraine by the Germans at the end of World War I. Employees, that had been working at the Power Plant for a long time, said that this equipment had been purchased in exchange for foodstuffs, which were bought by the Power Plant in villages and would be sent to Germany.
12. That equipment had been lying in storage for some years, and all was used up after the New Power Plant had been put into operation, that is, when the gradual shift to the use of alternating current began about 1927-1929.
13. Different equipment and electric appliances were purchased from several firms over a period of years, and, consequently, there were many types of machines in use. Electric motors and other electric appliances, in particular, which were used by the Power Plant itself and by its consumers, were manufactured by the following firms: General Electric Co., Siemens Schuckert, Siemens Halske, Isaria, "V K E".
14. At the end of the twenties installation and auxiliary materials began to be very scarce and hard to buy. From that time on they were very hard to get in spite of the total conversion to centralized supply.
15. Maintenance of the Power Plant equipment; different kinds of repair work; rebuilding; and construction of the network of electric lines were performed almost entirely by the personnel of "Vodosvet".
16. Work which the Power Plant was technically unable to handle was given to other units. A cracked crankshaft, for example, would be replaced with a new one instead of being repaired.
17. The Main Office, the Board of Directors of the "Vodosvet" Corporation, and the Technical Department for the whole "Vodosvet" were located in the Central Power Plant. The storehouses were located there too.
18. Besides, in the Central Power Plant there were the following shops: fitter, machine and tool shop; a forge room; a commutation crew room; winding room; a measuring laboratory; and other secondary shops.
19. There were approximately 300 staff personnel in "Vodosvet".
20. The Block Power Plant was located in the Oktyabrskaya Street in an area near the Kiev Rail-road station. It occupied the building of a former flour mill (or an oil factory). The flour mill burned up in 1919 or 1920. In this brick building there was a machine room with 300 hp, a two-cylinder horizontal steam engine that was still in good shape. The engine had a rope flywheel pulley and a transmission.
21. Later (about 1925) a brick addition was built for a new transmission, an alternator, and a distributor, and the auxiliary "Block Power Plant" was opened. The Block Power Plant used coal as fuel. Its steam boiler room was equipped with old Lancashire steam boilers. The Block Power Plant alternator had a capacity of about 200 KVA.

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22. The Block Power Plant was connected by a 6300 volt line with the Central Power Plant. It was able to supply with electric power (both generated by itself and by the Central Power Plant), the neighboring region of the city by means of its high-voltage electric line and step-down transformers.
23. The New Power Plant was located at the river Vorskla (a tributary of the Dnepr) not far from the South Rail-road station. It occupied a building which had been intended to be a trolley car power station. Its construction had been begun before the revolution of 1917 but had not been completed.
24. The New Power Plant had steam turbines, and used coal as fuel. It was put into operation about 1927. At first, a turbo-alternator with a capacity of 1000 KVA and voltage of 6300 V was installed. In 1929 a turbo-alternator with a capacity of 3000 KVA started to operate.
25. [] work was done for enlargement of the building in 1935-36 for the purpose of a considerable increasing of capacity of the Power Plant.
26. The New Power Plant was connected by 6300 volt-line with the Central Power Plant. Besides, it supplies independently some regions of the city through feeders with voltage of 6300 V.
27. The following equipment of the New Power Plant was purchased in England: a turbo-alternator with a capacity of 1000 KVA, voltage of 6300 V and speed of 3000 rpm, with a steam turbine made by Kurtis; water-tube boilers of Babcock-Wilcox system with a normal pressure of 12 Kilograms per square centimeter and an economizer.
28. The equipment evidently had been purchased before the revolution, and had been delivered through Archangel. (A lost spare turbine rotor was found near Archangel in 1928, some years after the delivery of the turbo-aggregate, to which the rotor belonged).
29. Another alternator with a capacity of 3000 KVA, 6300 V, and speed of 3000 rpm, was manufactured by the Leningrad Electrical-Mechanical Plant. Its turbine was manufactured by the so-called Leningradsky Metallichesky Plant. 50X1-HUM
30. Water-tube boilers of the Garbo system, with a mechanical fire grade, were manufactured either in England or by the Taganrog Plant "Krasny Kotelschik".
31. Most of the electrical equipment was manufactured by "G E T" (State Electric Trust), though there were some Italian electric motors, and, [] some Italian ventilators. 50X1-HUM
32. The 3000 KVA turbo-alternator was installed by a representative from the Leningrad "Metallichesky" Plant with the assistance of a local crew of workers. The steam boilers were installed by a crew from the Plant "Krasny Kotelschik" with the assistance of local workers. A main pip-line was assembled by a specially summoned German mechanic from a firm unknown [] with the assistance of local workers. Electric equipment was installed by local electricians. 50X1-HUM
33. There was a small repair-machine shop in the New Power Plant too.
34. The 3000 KVA turbine was incomparably worse than the turbine from England. In particular, vanes of its rotor got absolutely out of order after some months of operation, and the turbine rotor had to be replaced.
35. Formerly there were a number of steam power and electric power plants for local consumption, besides the City Power Plants. They were driven by diesel engines or by steam piston engines. Plants of that kind were in the Locomotive-Repair Plant, flour and oil factories, hulling mills, the City Water Supply and so on.
36. The largest power plant for local consumption was in the Locomotive-Repair Plant. It was a direct-current diesel power plant with three or four four-cylinder diesel motors with a capacity of 200 and 150 horsepower each.
37. During the period [] (up to the summer of 1930), and, evidently during some years after it, the capacity of the Poltava City Power Plants was not large enough, in spite of the fact that it was being gradually increased. 50X1-HUM

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38. Consequently, power plants of individual enterprises had to continue to be in operation. The power plant of the Locomotive-Repair Plant, in particular, was in operation all the time; one of a flour mill power plant was reconverted into a block power plant.
39. The steam power plant of the City Water Supply operated too. The Locomotive-Repair Plant and the City Water Supply were simultaneously supplied (by the New Power Plant) through transformer substations, which were located on the premises of those two plants.
40. All new enterprises (which were built after 1920) [] had no individual power plants, and consumed electropower of the City Power Plants. They were as follows: the Bacon Packing Factory; the Packing Combine; the Plant "Metall"; and hosiery factories.
41. The conversion of all the enterprises to the central supply of electric power evidently took place during those years. That was undoubtedly the most efficient way to supply electrical power.
42. N K M Z in Kramatorskaya got electric power from two sources: the Thermo-Electric Power Plant ("T E Zs") of N K M Z; and the "Elektrokolzso" (Electric Grid) of "Donenergo".
43. The Thermo-Electric Power Plant of N K M Z was located on its premises. It was a steam-turbine power plant with a total capacity of 40,000 KVA. Its boilers used powdered coal as a fuel [].
44. Besides electric power, "T E Zs" supplied with hot water for heating and other purposes plant shops, auxiliary compartments, and dwellings of the plant settlement of "Sozsgorod".
45. Close by "T E Zs" there was the Plant Central open-type electric Transformer Substation, which was connected with the power line of the "Donenergo" Grid. [] the transformation was from 115,000 V to 6,300 V, or from 115,000 V to 15,000 V.
46. Plant indoor transformer substations were located in a neighborhood close to the shops consuming electric power. They were reducing voltage of the plant high-voltage line to 380x220 V for feeding shops. The intraplant electric line was a cable line.
47. The Plant "T E Zs" was able to supply the Plant both with electric power generated by itself and electric power from the Grid, through its distributive electric installation. "T E Zs" was able to supply the Grid with Electric power too.
48. Besides "T E Zs", there were two more turbine power plants in Kramatorskaya, the New Power Plant ("N E S") and the Old Power Plant "SKMZ", both of which were located in the SKMZ region.
49. [] the capacity of the new Power Plant was somewhat less than that of "T E Zs", and the capacity of the Old Power Plant still less. [] the total capacity of both of them might be considered to be equal, approximately, to 40,000 KVA. Those power plants were connected with the "Donenergo" Grid as well.
50. "Donenergo" Trust possessed some large regional power plants, which supplied the electric system "Elektrokolzso Donenergo" or "Donetskoye Elektrokolzso" (Donetz Electric Grid). Besides, "Donenergo" united many local power plants. The latter were connected with the "Donenergo" Electric Grid, and, consequently, were able to supply it with electric power during the periods of their underloadings, or get electric power from the Grid when it was necessary, in particular, in cases of overloadings, repair, insufficiency of own established capacity and so on.
51. [] the Zuevsky Power Plant and the Shterovskiy Power Plant were the largest power plants of "Donenergo". Both of them used culm as a fuel. The capacity of each of them was of something about 100,000-150,000 KVA. Voltage of electric system of the Grid was approximately 115,000 V.

Note: NKMZ: Novokramatorsk Metallurgical Zavod.

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52. [] the electric power supply of Moscow is carried out by the "Mosenergo" Company, at the disposal of which there are some regional and linear power plants. All of them are connected with the system of the Moscow Electric Grid. 50X1-HUM
53. Some very well known regional power plants are: The Shatura Power Plant-"Shatur-skaya G R E S"; and the Kashira Power Plant "Kashirskaya G R E S". Both of them are situated 115-120 kilometers from the center of Moscow.
54. The capacity of each of them is something about 150,000 KVA, voltage of the system is approximately 120,000 V.
55. The Shatura Power Plant is situated in a peat region, and it uses peat as fuel. The Kashira Power Plant uses powdered coal as fuel.
56. One of the linear power plants of "Mosenergo"-Linear Power Plant #2 of "Mogos" is located in Moscow-city near the Moscovretsky Bridge, beyond the river Moscow on Balchug Street. It uses oil as a fuel. Its capacity is over 100,000 KVA.
57. Besides the Linear Power Plant #2, there are some other power plants in Moscow, which are connected with the "Mosenergo" Grid.
58. The Ministry of Power Plants and Electric-Technical Industry has to deal with the problems of supplying power plants with all the necessities. The Ministry has adequate staff, plants, and repairing facilities.

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